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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/808,518 | 03/25/2004 | Hiroshi Harada | 0425-1029PUS2 | 5545 |

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EXAMINER

JOHNSON, STEPHEN

ART UNIT

PAPER NUMBER

3641

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 10/808,518 | Applicant(s) HARADA ET AL. | |
| | Examiner Stephen M. Johnson | Art Unit 3641 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 12/8, 13, and 15-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12/1, 12/4, and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Applicant's election without traverse of the group I igniter assembly in the reply filed on 10/19/2005 is acknowledged.

Claims 1-7, 12/1, 12/4, and 14 read on the elected invention and an action on these claims follows. Claims 8-11, 12/8, 13, and 15-16 are withdrawn from consideration as being directed to the non-elected method for making an igniter.

Claim 8, as amended, is directed to the non-elected method for making an igniter. Alternatively, claim 8 would also be restricted on the grounds of sub-combinations usable together in view of applicant's election of the group I igniter assembly as described in claims 1 and 4.

2. The replacement sheet filed on 10/19/2005 has been approved.

3. The substitute specification filed on 10/19/2005 has been disapproved because it does not comply with 37 CFR 1.125(b). The substitute specification was not accompanied by a statement that it contains no new matter.

4. Claims 3-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, line 2, the phrase "one of" should be claimed as (selected from one of) for an appropriate Markush grouping. In claim 4, line 8, use of the phrase "an upper end thereof" makes the claim indefinite as to whose upper end is intended. In claim 4, line 16, the phrases "the cylindrical stepped portion" and "the cylindrical inclined surface" lack complete agreement with their antecedents.

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 4, 6, 12/1, 12/4, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Avetisian.

Avetisian discloses an igniter assembly comprising:

- | | |
|--|--|
| a) an igniter; | 8, 12 |
| b) a cylindrical metal collar; | 4; col. 1, lines 65-67 |
| c) a resin; | 6; col. 2, lines 14-15 |
| d) a collar main body portion; | 16 |
| e) a cylindrical protruding portion; | 24 or between 24 and 16 |
| f) a cylindrical stepped portion; | 26 |
| g) a circular inwardly protruding portion; and | innermost portion of 16 (adjacent entry of 12 into 6) |
| h) a circular stepped portion. | innermost portion of 16 (adjacent entry of 12 into 6) |

7. Applicant's arguments are addressed as follows:

It is argued that the notch 26 of Avetisian is provided at a lower portion of the molding feature 24 and not at a vicinity of an upper end of the molding feature 24. In response, "a stepped

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portion ... in an outer surface of the cylindrical protruding portion at a vicinity of an upper end thereof” is what applicant has claimed. The examiner considers element 16 of Avetisian to constitute the collar main body portion (applicant’s 22). All that portion above element 16 including element 24 is considered to be the cylindrical protruding portion (applicant’s 24). Avetisian has three different steps (the one at the top of element 24 and the two that form the notch 26). Any of these different steps could be fairly described as being located “at a vicinity of an upper end” of the structure that makes up item 24 of Avetisian and the structure between item 24 and item 16 in combination (applicant’s 24).

With regard to claim 1, it is argued that the claim limitation “the resin being provided such that at least a part of the igniter is exposed from the resin”. In response, clearly the top portion of the igniter 8, 12 of Avetisian is covered with resin. However, the bottom portion of the igniter 8, 12 of Avetisian is not covered with resin (see fig. 1).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avetsian in view of Dietzel et al..

Avetsian applies as previously recited. However, undisclosed is a metal casing comprised of alumunim. Dietzel et al. teach a metal casing comprised of aluminum (col. 2, lines 59-61). Applicant is substituting one material type of casing for another as explicitly encouraged by both the primary reference (Avetisian (col. 1, lines 65-66)) and the secondary reference (Dietzel et al.

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(col. 2, lines 59-61)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Dietzel et al. to the Avetsian igniter assembly and have an igniter assembly with a housing or casing of a different material type.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Avetsian in view of Fogle Jr..

Avetsian applies as previously recited. However, undisclosed is a metal casing comprised of iron. Fogle Jr. teaches a metal casing comprised of iron (col. 7, lines 63-66; col. 9, lines 36-37). Applicant is substituting one material type of casing for another as explicitly encouraged by both the primary reference (Avetsian (col. 1, lines 65-66)) and the secondary reference (Fogle Jr. (col. 9, lines 36-37)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Fogle Jr. to the Avetsian igniter assembly and have an igniter assembly with a housing or casing of a different material type.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-2, 4, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Yabuta et al. (884).

Yabuta et al. (884) disclose an igniter assembly comprising:

a) an igniter; 32

b) a cylindrical metal collar; 40

| | |
|--|--------------------------------|
| c) a resin; | 36 |
| d) a collar main body portion; | 83 |
| e) a cylindrical protruding portion; | 41 |
| f) a cylindrical stepped portion; | inside 40; opposite 41 |
| g) a circular inwardly protruding portion; | see fig. 2; adjacent cavity 85 |
| h) a circular stepped portion; and | see fig. 2 |

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yabuta et al. (884) in view of Dietzel et al..

Yabuta et al. apply as previously recited. However, undisclosed is a metal casing comprised of aluminum. Dietzel et al. teach a metal casing comprised of aluminum (col. 2, lines 59-61). Applicant is substituting one material type of casing for another as explicitly encouraged by the secondary reference (Dietzel et al. (col. 2, lines 59-61)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Dietzel et al. to the Yabuta et al. igniter assembly and have an igniter assembly with a housing or casing of a different material type.

14. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yabuta et al. in view of Fogle Jr..

Yabuta et al. apply as previously recited. However, undisclosed is a metal casing comprised of iron. Fogle Jr. teaches a metal casing comprised of iron (col. 7, lines 63-66; col. 9, lines 36-37). Applicant is substituting one material type of casing for another as explicitly encouraged by the secondary reference (Fogle Jr. (col. 9, lines 36-37)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings

of Fogle Jr. to the Yabuta et al. igniter assembly and have an igniter assembly with a housing or casing of a different material type.

15. Claims 12/1 and 12/4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yabuta et al. (884) in view of Avetisian.

Yabuta et al. apply as previously recited. However, undisclosed is a resin support that is a polyamide resin. Avetisian teaches a resin support that is a polyamide resin (col. 2, line 15). Applicant is substituting one type of resin support material for another in an analogous art setting as explicitly encouraged by the secondary reference (see col. 2, lines 12-18). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Avetisian to the Yabuta et al. igniter assembly and have an igniter assembly with a particular type of resin support material.

16. Applicant's arguments filed on 10/19/2005 have been fully considered but they are not persuasive. These arguments have been addressed in paragraph 7 of this Office action.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

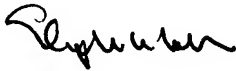
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877 and whose e-mail address is (Stephen.Johnson@uspto.gov). The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.



STEPHEN M. JOHNSON
PRIMARY EXAMINER

Stephen M. Johnson
Primary Examiner
Art Unit 3641

SMJ
December 21, 2005